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ABSTRACT

Needs assessments enable program developers to address the unique characteristics of their target audiences and their environment. They have a number of useful purposes for AIDS (Acquired Immune Deficiency Syndrome) education and training. They inform program planning and implementation, provide baseline data, increase the potential for participation, offer opportunities for input from other key people, and educate respondents. Many AIDS Education and Training Programs sponsored by the National Institute of Mental Health have used questionnaires and interviews with targeted population groups, discussion group formats with advisory boards and community groups, key informant surveys, and postintervention follow-up assessments with participants. Differences in choice of strategy among programs depend on how the evaluators answered these questions: who was asked, what was assessed, how information was gathered, and how the information was used. The changing nature of the AIDS epidemic has been chronicled. The population of provider groups and their training needs have changed and will continue to change. Recommendations to new programs for future assessment of AIDS-related education and training include the following: consider the position of the program and staff in the community, broaden the definition of needs assessment, use more than one source of information and more than one method of data collection, consider both perceived and unspoken needs, and consider the needs of nonparticipants. (YLB)

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ASSESSING HIV RELATED TRAINING NEEDS OF HEALTH CARE PROVIDERS

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ABSTRACT

Needs assessments enable program developers to address the unique characteristics of their target audiences and their environment. Assessing the HIV-related education and training needs of health care providers has informed the Twelve Second Generation AIDS Training Projects' program design and content. This discussion offers an overview and examination of the variety of needs assessment approaches used by these NIAH sponsored projects. After providing a generic model for needs assessment, the variety of approaches used across sites is highlighted with a focus on characteristics of informants, methods and content of data collection and how these data were utilized. Anticipated changes in the future needs for HIV-related training are presented. Finally, recommendations for future assessment of HIV-related education and training is provided.

INTRODUCTION

There is general consensus in the health education literature that sound program design is preceded by a problem diagnosis process and be firmly grounded in knowledge about the targeted individuals, groups, communities, and institutions [Gilmore, et.al., 1989; Green, et.al, 1980; Ross and Mico, 1980]. A needs assessment is a key element in the identification of problems to be addressed, in the delineation of important populations to be targeted, in the understanding of the needs and issues of these targeted population groups, in the articulation of gaps or unmet needs, and, subsequently, in the development of sound interventions [Scriven and Ross, 1978; Basch, 1987a].

Needs

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Needs Assessment

In our discussion here, we define a need as the discrepancy between what exists and what is desired. Thus, a needs assessment is a procedure to identify such discrepancies (Gilmore, Campbell and Becker, 1989). Generally, needs assessments are conducted prior to program planning and implementation and as part of an ongoing program review, evaluation, and modification. Figure 1 depicts a generic model for assessing needs for HIV-education and training for health care providers. This model should be considered a template for initial planning of needs assessments only. Thereafter, the data gathered will help shape the resulting needs assessment process.

Needs Assessment Process

The first step in any needs assessment is a review of extant information (including pertinent literature) and contacting others with similar projects or experiences (to review project goals, mandates, and findings where pertinent). This enquiry, although without a defined end, should help inform the initial data gathering stage. The process continues with outreach to individuals and groups who add their perspectives and insights. Through these initial searches, planners are able to define the existing state of HIV education and training and the ecological context in which it exists (this context may include community, institutional, and social factors as well as the broader cultural, political, and economic environment). A comparison of the "existing state" to a "desired state" completes the initial

needs assessment process.

Thus, particular attention is placed on the question: "why does the 'desired state' not currently exist?". Answers to this initial question will enable planners to list available resources and delineate barriers to change. Follow up questions will focus on facilitating factors and hindrances.

PURPOSES OF NEEDS ASSESSMENTS

Needs assessments have a number of useful purposes for AIDS education and training. The most obvious use is to inform program planning and implementation. This goal is facilitated by making and flexibly following a needs assessment plan which includes multi-sources and multi-methods of data collection, timely feedback to program planners, and a willingness to review data in an on-going manner. On-going needs assessments also provide information about similarities and differences across target groups and about how the needs of a given target group (eg. emergency room physicians) have changed over time.

Thoroughly documented needs assessments can serve the overall evaluation effort as well. The data collected in the initial needs assessment can serve as base line data. These data can then be incorporated into any of a variety of designs to measure change as a result of trainings or interventions.

The proper inclusion of a needs assessment provides other benefits to programs and participants as well. First, needs assessments increase the potential for participation. Engaging

prospective program participants in the process of defining their needs brings them into the planning process. This inclusion follows the mandates of sound pedagogical practice and may well influence the success of a program. Health education findings inform us that a key variable in the success of any number of educational programs is the amount and nature of participation of the prospective target group [Green, 1984].

In addition, broad based needs assessments offer opportunities for input from other key people as well. This broad approach offers valuable information and also serves a practical end. When people are involved in the development of goals and objectives, they are more likely to "buy-in" to the goals and values of the training project [Rossett, 1987]. People who control access to health care providers, who can help or hinder the project goals, or who have other resources to contribute are more likely to support a project of which they feel a part.

Finally, participation in a needs assessment process can serve an educational goal. Such participation can educate respondents about how to construct and implement thoughtful educational and training plans. This may be very important, especially if these people will be called upon to carry-on the work begun by a project which no longer has the funds or the mandate to provide HIV education and training.

NEEDS ASSESSMENT APPROACHES

Needs assessments can take on many forms. Depending on how they are structured, they can be relatively objective or subjective; they can have an individual, group, community, or organizational focus, and they can be tied to the need for increased knowledge, belief or attitude change, increased skills, practice or behavior change, or normative and social change. Needs can be inferred or assessed directly.

A wide array of methods are used to assess perceived and objective needs. These include record analysis and review of existing data, nominal group process, delphi techniques, community forums, risk appraisals, observational self-appraisals, key informant interviewing, focus group interviewing, participant observation, as well as materials review and resource listing. These methods and strategies are adequately described elsewhere [Gilmore, et.al., 1989; Green, et.al, 1980;]. However, many of the NIMH sponsored AIDS Education and Training Programs utilized questionnaire and interviews with targeted population groups, discussion group formats with advisory boards and community groups, key informant surveys, as well as post intervention follow-up assessments with participants. Some issues inherent in the use of some of these processes will be reviewed briefly.

Questionnaires and Interviews

The use of structured questionnaires and interviews yields quantifiable data that can serve multiple purposes. Certainly, important insights and information can be garnered for needs

assessment purposes; the same information can serve as baseline data for future impact analysis. A total reliance on structured questions with set responses may serve to narrow the purview of perspectives and issues, therefore, the inclusion of open ended questions, though difficult to summarize or quantify, can broaden the perspective.

In addition, to serve the needs assessment purpose, data from questionnaires and interviews must be examined and analyzed in a timely fashion and be presented to program planners. Several evaluators caution against the temptation to gather more data than can be quickly processed and analyzed to be of use in the planning process.

Group Discussions

A number of programs have relied on group discussions for insight into needs and understanding of selected issues. Advisory boards have been established within many projects to inform the program development process. In addition, the use of the more structured focus groups has proven useful for program planning as well. The focus group interview is a recognized qualitative research technique used to gather data about a specified problem and has been a powerful tool for obtaining information about sensitive topics [Basch, 1987b]. To best serve needs assessment purposes, several discussion groups, drawing from various population groups, would be needed.

Key Informants

The key informant approach uses a nonprobability sampling design. Key informants may be interviewed (in person or by telephone) through a structured or unstructured format. They may be asked to fill out questionnaires with both set response and open-ended questions. The key informant approach often serves as an initial networking process -- enabling a program to gather in a wide array of practitioners for their input and perspectives and forge links with these individuals. It is particularly beneficial for a new agency or for the initiation of a new project. However, this approach may also pose problems. Sometimes individuals will be biased; some may be focused on the needs of a particular group but be unaware of the needs of others; some may not be truly expert in the area of inquiry. Evaluators will want to attend to the range of key informants included in the assessment process. Overall, this approach is relatively easy to implement and frequently involves low costs [Basch, 1987a].

Analysis of Pilot Interventions

Because a needs assessment is an on-going process, it may also comprise those activities undertaken to identify needs after the first intervention. Therefore, a needs assessment may also include the design and implementation of a pilot intervention. The process and outcome evaluations generated from this intervention can offer measures of how well the desired state was achieved, and more subtly, how well the existing state was

described. This process yields information about future needs of the training groups as well as the needs of other related training groups. Over time, this process contributes to a thoughtful and powerful understanding of the training and education needs of a wide variety of training groups, institutions and communities.

Project Examples

All twelve NIMH funded AIDS Education and Training projects conducted some form of needs assessment. Approximately one half conducted such assessments routinely, while the remainder conducted them occasionally. All projects indicated that their needs assessment process was useful. Were they to start over, about 40% felt they would spend more time on needs assessment. None would choose to spend less time.

Case Review

Unique among the twelve NIMH funded contractors, one project had the broad mandate of providing education and training programs across the country. This project required a needs assessment protocol that could be repeated in each city to which services were provided. Thus, this project conducted one of the most extensive needs assessments and this experience illustrates some of the issues each project addressed.

Assuming a broader mandate than other NIMH projects, this organization proposed to go into mid-sized cities not served by the other projects but with a significant number of cases of AIDS

and with existing local AIDS organizations. A thorough needs assessment would enable program staff to become familiar with each community to maximize program effectiveness. In addition, the project planned to utilize the needs assessment and program process to empower local organizations and to help establish community networks.

Once a city was identified, the project staff would spend approximately one month calling county and state agencies, local community-based organizations, community mental health organizations and other AIDS interested groups. If the groups contacted expressed interest in an AIDS education program and a willingness to cooperate in the conference, a site visit was arranged. During the site visit, project staff spent four days in the targeted city and conducted a number of meetings. Usually the site team started by meeting with local people with AIDS to determine their perceptions of need. The next stage of the needs assessment process included meetings with various care providers and community groups. Frequently, the site visitors found that these meetings would bring together local leaders who had not met before. Thus, the initial needs assessment forums help create community networks and cohesion.

At the end of the site visit, project staff would encourage the community leaders to continue the needs assessment process. In addition, two people were hired as local community conference coordinators. Upon returning to the home office, the site

visitors would summarize their impressions and these observations would be used to help design the two-day conference curriculum. On average, about six months were required between the initial identification of a community and the conference. This approach to needs assessment enriched program offerings and enabled planners to very specifically tailor programs to meet the needs within a given city and address concerns of patients with AIDS, practitioners, and various community groups and agencies.

Project staff feel that the needs assessment procedure was very worthwhile and would recommend this type of in-depth assessment for similar projects. The single most worthwhile aspect of the needs assessment was described as empowering the community and giving the community the model and the encouragement for conducting needs assessment on an ongoing basis.

KEY ISSUES IN ASSESSING NEEDS

In comparing needs assessment strategies used by the various contractors, several variables emerged. Differences among programs depended on how the evaluators answered the following questions:

- Who was asked?
- What was assessed?
- How was information gathered?
- How was the information utilized?

As previous discussion in this series have noted (Connell et al, Auerbach et al), the second generation AIDS education and

training projects varied considerable by their site, by their broader geographic area, and by the activities in their area. Therefore, needs assessments varied accordingly. Answers to the listed questions differ on the basis of the forces acting on the various programs. Each of these questions are examined in some detail in the following sections.

Who Was Asked?

The answer to this question is, in part, dependent on where the project is located and who is defined as the target audience. Projects located within an institution which is defined as "containing" all or most of the prospective audience may have had easy access to that audience and could assess the population needs. For example, one project, located in a medical school, was able to assess AIDS knowledge of all new medical students to help determine their needs for AIDS education and to compare these needs across specialty areas.

Other projects used key informants. Some of these projects, although located in a major institution, defined their audiences as members of or workers in other agencies or institutions. In some instances, the key informant was defined as the contact person within the agency, the administrator, or the senior professional. This key informant answered questions concerning what AIDS education information was needed for the particular target group. One project noted that using administrators or senior professionals was useful in increasing attendance and

gaining support for the programs, but was of little help in designing program content.

Identifying key informants is not always easy. To facilitate this process, one project implemented a modified sociogram approach to determine who were the people perceived to be either experts on the AIDS topic or community leaders who could be of assistance in planning educational interventions for professional and volunteer audiences. The sociogram which emerged through interviews with fifteen representatives of different organizations and institutions revealed an unexpected combination of names, many of whom would not have been identified using other strategies. From this list, the project was able to construct a helpful advisory panel and list of consultants with high credibility in the community. Using a sociogram approach, this project successfully identified important community people that could assist in program planning in addition to gaining valuable information about perceived needs.

Another project, with a mandate to provide programs within a large geographic region, used a "snow ball" method to identify a broad variety of practitioners who were actively involved AIDS related care providers, organizers, or educators. The snow ball method yielded a list of approximately seventy five providers who became the key informants regarding needs in the area. The needs assessment was then conducted as a structured telephone interview. Over fifty-five key informants participated and the

resulting information yielded insight about activities and gaps in specific states and an overview of needs in the entire region.

Another key informant approach included the use of advisory boards. About one-half of the projects had advisory boards drawn from a defined community which met on a regular basis. One function of many of these boards was to help identify the needs within the community and to help gain access to a given part of the community.

Overall, projects assessed needs and perceptions of members of the targeted audiences, of their fellow workers or supervisors, of those who would be recipients of care, and of those informed and active members of professional and community groups. The general impression gained from the various projects was that the position of the project within the community dictated who ought to be assessed. Those projects that offered free standing conferences often assessed a greater number of people to target needs of a large group and to maximize attendance. Those projects that worked within agencies with a more captive audience were more likely to use the less time consuming approach of key informants within the agency. In addition, those projects which routinely entered communities other than their own often felt a greater need to assess larger numbers of individuals rather than just a few key informants.

What Was Assessed?

The second consideration programs faced was "what needs are

to be considered?" Programs answered this question in many different ways. The most common approach was to ask what trainees needed to know. Other programs struggled with the issue "what should trainees know?" Many of the programs tried to make a distinction between what trainees wanted to know versus what they needed to know.

This distinction was described as the "demand assessment versus the needs assessment" and was particularly apparent when the only source of information was prospective participants. For example, certain topics were generally popular such as medical treatment or neuropsychiatric complications of HIV. Some of the topics of cross cultural issues, working with gay clients, reducing fear or bias -- were less often requested by prospective trainees. This often put project staff in the position of feeling that trainees needed exposure to a topic despite their reluctance to indicate this.

In planning programs, some flexibility was required to encourage a balance between the demands of an audience and the needs that project staff perceived. Such difficulties were often lessened by collecting needs assessments from more than one source.

Some of the NIMH programs approached the question "what needs are to be assessed?" by assuming a broad perspective that included community as well as individual needs. These programs adopted a community view and assessed existing as well as missing

services and resources. It was assumed that these analyses would indicate the needs for education on a community wide basis. For example, one of the projects that offered community based programs in a large region included, in the initial needs assessment, queries about existing programs and program providers in a specific area. The key informants were asked to identify the "missing elements" among services in their area, to offer assessments of facilitating factors as well as barriers to coordinated care in their area, and to identify those institutions which were most or least supportive of AIDS related staff training and AIDS related care. This approach provided insight into community and institutional needs.

How Was Information Gathered?

A wide variety of needs assessment methods was utilized within and across project sites. These included formal and informal data gathering, individual and group interviews, face-to-face interviews, telephone interviews, and paper-and-pencil questionnaires.

The use of structured paper-and-pencil questionnaires as part of the needs assessment process was quite fruitful for some of the projects. Certainly, the use of this method allowed data gathering from relatively large numbers of individuals in a relatively short period of time, for quantifying results, and for comparing needs across target audiences. For instance, one site used standardized forms to compare needs across medical

specialties as perceived by both residents and faculty within those specialties.

Structured, paper and pencil measures were also used to assess change over time. As such, some sites used attitude measures both as a needs assessment and as a pre-measure to assess change related to training. Often, these needs assessment/pre-tests were administered as part of a pre-registration process. As a needs assessment, it permitted program planners to modify or adjust workshop offerings based on findings. As a pre-test, it offered base line data to assess change. In some instances, however, not all of the actual program participants had completed the pre-registration assessments. Thus, some programs report a trade off in combining pretest and needs assessment prior to a training. While time could be saved and planning enhanced, fewer pretest measures might be available for analysis of change.

Some programs reported a problem with structured questionnaires. Some of the evaluators report that structured question and answer formats often limited the range of needs identified to those specifically asked about. Because of this, many projects included open ended questions on their paper and pencil questionnaires as well as on their interview protocols.

Other programs included different kinds of data gathering methods such as small group discussions and structured focus groups. One project, for example, initially utilized both a

paper and pencil approach and a focus group of open discussion. In comparing the two methods, the project staff felt that the most valuable information came from the focus group.

How Was Information Utilized?

Generally, information was collected to design specific programs or to target specific groups to educate. Many programs reported that the needs assessments helped focus training objectives more clearly and helped program planners sequence a series of training sessions. This process was enhanced by a quick "turn around" time so that needs assessment data were appropriately available to program planners.

Many sites report that they conduct on going needs assessments by including specific opportunities, after training, to assess future needs of the target group. Some programs included a specific question such as "what type of program or programs do you now need?" on the post test instrument at the end of a session or training event. Others asked this type of question in a follow-up assessment of trainees. Still others were able to use the data from post tests to assess future needs. Post-test scores on knowledge, attitudes and behaviors provide information about future needs.

This on-going needs assessment process is most useful for those programs that return to a particular area or to the same audiences over time. For instance, one project returned to three distinct rural communities yearly. By assessing future needs,

they were able to develop highly tailored training for each community.

Some programs report that they faced some problems regarding the appropriate use of findings. For example, one project noted that information gleaned from the advisory board was never appropriately "packaged" and "delegated" to any project staff for follow up; thus, the information and the opportunity provided, was lost. Another project reported having assessed a large number of prospective participants within a school but then found themselves in a position where they were unable to gain access to the population for training. The information gathered served no purpose. In addition, the process of assessing needs without a follow-up may have had negative consequences. Those who so willingly gave of their time may have had expectations that their time would be repaid in services offered. One project which collected post workshop needs, reported not having a systematic way of utilizing this information because the project did not routinely compile the information or necessarily return to the same group soon enough to follow up on the needs listed. Wasted time for program and participants alike may have negative consequences. Valuable time is lost and participants may be less likely to cooperate in future attempts to assess needs.

In addition, a needs assessment process that focuses solely on future needs of trainees can limit a program's purview. Programs may inadvertently but systematically ignore those who

have never attended a training.

ONGOING CHALLENGES: CHANGING NEEDS

The changing nature of the HIV epidemic has been well chronicled. The population of provider groups and the training needs of these providers have changed and will continue to change as well. During the initial wave of gay male infection, the first providers in an area often comprised a small number of individuals who were personally or professionally connected to the infected (gay) communities. Over the last decade the provision of health care (including psychosocial care) has become more broadly based and includes a wider group of professionals. Initial needs focused on information about the disease itself. As the population of providers became broader, the training needs included a need for examining attitudes and values held by health care providers about those at risk or infected with HIV.

As the second wave of the epidemic emerges, the nature of who provides care to those affected by the epidemic has begun to change again. Although attitudes and values of mainstream health care providers remain as issues (and now also concern attitudes towards IV drug users, sex workers, members of impoverished communities, as well as attitudes toward homosexuality), new previously unidentified providers of services have emerged. These providers, many from disenfranchised groups or representing or serving these groups, may well struggle less with attitudes and values that interfere with their work with risk populations,

and struggle more with lack of access to mainstream knowledge, technology, and delivery systems.

Any identification of needs must now include the training and support needs of mainstream, minority, and alternative health care providers. Identifying and addressing the needs of alternative health care providers will make for new and interesting challenges. At the same time, providing training to mainstream health care workers about ethnically sensitive and culturally appropriate interventions will remain a significant training need.

At some sites, there is a lessening of institutional support for HIV-education. Some trainees have reported feeling "too much time is spent on AIDS". Institutions which initially seemed very supportive, have become less so. If this proves to be a pattern, new challenges to identifying and meeting the needs of health care professionals will be posed.

As time progresses, health care providers will become more and more heterogenous in their knowledge, attitudes and experiences with HIV. Some providers will become "old hands" while other will be novices. Indeed, if the HIV epidemic receives less media attention, new young entrants to the health care fields may be less informed and sensitized to the issues involved than current practitioners. Assessing the needs for HIV-related training will continue to be a challenging task. Given the anticipated changes in provider and delivery system

characteristics, educators will need effective needs assessment procedures to inform the program planning process.

RECOMMENDATIONS FOR HIV EDUCATORS

The experience of the evaluators of the twelve second generation AIDS education and training projects enables us to make several recommendations to new programs in the design and implementation of needs assessments.

- **Consider the position of the program and staff in the community at large and in the communities targeted for education.**

The experience of the NIMH AIDS education projects suggest that needs assessment can be an integral part of outreach and public relations for the programs. Good community relations can influence attendance, increase program relevance, and increase program effectiveness. Community or individual investment in the training is influenced by the amount and nature of participation. A needs assessment process gives voice to the community and to the individual. This participation also increases commitment to the resultant program.

- **Broaden the definition of needs assessment**

Many projects felt they increased their effectiveness through expanding the definition of needs assessment to include a broader ecological view. Those projects which also considered the social, cultural, and economic needs of an agency, institution, and a community felt they had additional valuable information and direction to use in targeting audiences for

education.

- **Use more than one source of information and more than one method of data collection.**

The evaluators agree that one should not trust a single source or method of needs assessment. Educators are encouraged to use a variety of sources of information such as targeted participants, key informants, consumers and potential consumers, and advisory boards. In addition, a variety of data collection methods should be considered. Formal paper and pencil tests, personal and group interviews, discussion groups including focus groups all yield valuable information.

- **Consider both perceived needs and unspoken needs.**

Popularity and needs are not synonymous. While perceived needs often reflect real needs, personal discomfort with topics will distort this relationship. Thus, educators should have some method of determining the difference between the perceived needs of a group versus the unspoken needs. Using different sources of information and carefully analyzing needs assessment results help overcome this problem.

- **Determine the goal of needs assessment**

Needs assessment can be used for a variety of goals including program design, involving participants, building networks within the community, and as pretest measures. By considering and clarifying the variety of goals that can be accomplished, a program can sharpen the focus of the needs

assessment and increase staff investment in the process.

Considering needs assessment as a process that can be useful to the project can expand the scope of a needs assessment and the effectiveness of an intervention. An important part of this expanded role of needs assessment will be the design of effective methods to utilize the information gathered.

- **Consider the needs of those not attending programs.**

A consistent problem for AIDS educators is trying to design methods to increase the attendance of hard to reach groups. These groups can include minority groups, occupational groups and those who consider themselves uninvolved in the epidemic. Some of the programs increased the minority group interest through including people of color on staff or including leaders from the minority community on advisory boards. Outreach to occupational groups such as physicians has necessitated bringing programs to existing professional meetings such as grand rounds or association conferences rather than expecting attendance at free standing workshops.

The most difficult group to access seems to be those who feel that they are not involved in the epidemic because it does not include their specialty or because they do not want or are afraid to be involved in care of AIDS patients. Repeated outreach is required. A broad based needs assessment process could tap issues and enable program designers to appropriately tailor programs. For example, some providers have been drawn to

meetings that focus on legal obligations. In addition, participation can be increased through a needs assessment process which involves people and professional groups in program design.

Well designed needs assessments provides information that enables program planners to identify gaps in knowledge, skills, or services; build on existing strengths within an area or institution; target appropriate audiences; design relevant and appropriate educational programs; and to meet the needs of individuals, professional groups, communities, agencies and institutions. The process itself increases participation and can serve to enhance program success. Furthermore, the information gathered can serve as base line data for measures of change after program implementation. Because the HIV epidemic is ever changing, needs assessments in this area must be on-going.

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Figure Caption

Figure 1. A Needs Assessment Model for HIV-Education and Training

THE NEED ASSESSMENT PROCESS